

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND the claims in accordance with the following:

1. (Currently Amended) A method for instruction processing executing on a computer, comprising:
identifying a classification of a functional unit which can execute a basic instruction;
determining whether said basic instruction can be assigned to a logical instruction slot;
determining whether said basic instruction is arranged in an allowable order; and
assigning, to a physical instruction slot, said basic instruction determined to be assignable to said logical instruction slot by increasing a logical instruction slot pointer based on a relation between said basic instruction determined to be assignable and another basic instruction assigned to a corresponding logical instruction slot;

wherein the computer is a variable length Very Long Instruction Word processor with a predefined allowable arrangement of basic instructions, the computer having a plurality of physical instruction slots and a plurality of functional units corresponding one-to-many or many-to-many, and the logical instruction slot is an imaginary instruction slot which corresponds to the functional unit.

2. (previously presented) The method for instruction processing as claimed in claim 1, wherein said identifying is divided into identifying an instruction category of a basic instruction, and identifying a classification of a functional unit which can execute said instruction category.

3. (previously presented) The method for instruction processing as claimed in claim 1, further comprising prior to said assigning, checking a relationship between said basic instruction that can be assigned to said logical instruction slot and other basic instructions to be assigned to other logical instruction slots.

4. (previously presented) The method for instruction processing as claimed in claim 2, further comprising, prior to said assigning, for checking a relationship between said basic

instruction that can be assigned to said logical instruction slot and other basic instructions to be assigned to other logical instruction slots.

5. (previously presented) The method for instruction processing as claimed in claim 3, wherein said determining includes a step of identifying said logical instruction slot having a lowest numeral determined to be assignable.

6. (previously presented) The method for instruction processing as claimed in claim 4, wherein said assigning includes identifying said logical instruction slot having a lowest numeral determined to be assignable.

7. (previously presented) The method for instruction processing as claimed in claim 3, wherein said identifying, determining, checking and assigning are repeated for all instruction slots.

8. (previously presented) The method for instruction processing as claimed in claim 4, wherein said identifying, determining, checking and assigning are repeated for all instruction slots.

9. (Currently Amended) A computer program executing on a computer and stored on a computer readable medium, comprising:

identifying a classification of a functional unit which can execute a basic instruction;
determining whether said basic instruction can be assigned to a logical instruction slot;
determining whether said basic instruction is arranged in an allowable order; and
assigning, to a physical instruction slot, said basic instruction determined to be assignable to said logical instruction slot by increasing a logical instruction slot pointer based on a relation between said basic instruction determined to be assignable and another basic instruction assigned to a corresponding logical instruction slot;

wherein the computer is a variable length Very Long Instruction Word processor with a predefined allowable arrangement of basic instructions, the computer having a plurality of physical instruction slots and a plurality of functional units corresponding one-to-many or many-to-many, and the logical instruction slot is an imaginary instruction slot which corresponds to the functional unit.

10. (previously presented) A computer program as claimed in claim 9, wherein said identifying is divided into identifying an instruction category of a basic instruction, and identifying a classification of a functional unit which can execute said instruction category.

11. (previously presented) The computer program as claimed in claim 9, further comprising , prior to said assigning, for checking a relationship between said basic instruction than can be assigned to said logical instruction slot and other basic instructions to be assigned to other logical instruction slots.

12. (previously presented) The computer program as claimed in claim 10, further comprising, prior to said assigning , for checking a relationship between said basic instruction that can be assigned to said logical instruction slot and other basic instructions to be assigned to other logical instruction slots.

13. (previously presented) The method for instruction processing as claimed in claim 1, further comprising:

arranging, via computer, a basic instruction in a logical instruction slot having an assignable lowest numeral; and

verifying an arrangement of a variable-length instruction including the basic instruction by increasing a logical instruction slot pointer.

14. (previously presented) The method for instruction processing as claimed in claim 1, wherein the logical instruction slot to which the basic instruction is assigned has an assignable lowest numeral.

15. (previously presented) The method for instruction processing as claimed in claim 1, further comprising:

checking whether all logical instruction slots have lower numerals than a numeral of the logical instruction slot to which said basic instruction is assigned.

16. (previously presented) The computer program as claimed in claim 9, further comprising:

checking whether all logical instruction slots have lower numerals than a numeral of the logical instruction slot to which said basic instruction is assigned.